

Progress Bar

Progress Bar The <aava-progressbar> provides a comprehensive progress indicator solution with both circular and linear variants. It supports multiple modes including determinate, indeterminate, buffer, and query states, with smooth animations, customizable colors, and full accessibility support. How to use ■ Import the component and configure it with your desired properties. import { AavaProgressComponent } from "@aava/play-core"; Circular Progress ■ Circular progress indicator with customizable size, color, and animation. Linear Progress ■ Linear progress bar with support for determinate, indeterminate, and buffer modes. Features ■ Multiple Progress Types ■ Circular Progress : SVG-based circular indicator with smooth animations Linear Progress : Horizontal progress bar with customizable height and styling Responsive Design : Automatically adjusts size based on screen dimensions Progress Modes ■ Determinate : Shows exact progress percentage with smooth animations Indeterminate : Animated loading indicator for unknown progress Buffer : Shows both progress and buffer values (linear only) Query : Animated indicator for querying operations Customization Options ■ Custom colors and themes Configurable sizes and positions Smooth animations with easing Accessibility features with ARIA support Performance Optimized ■ OnPush change detection strategy Efficient SVG animations Optimized rendering and memory management Responsive resize handling API Reference ■ Inputs ■ Property Type Default Description percentage number 0 Progress percentage (0-100) bufferValue number 0 Buffer value for buffer mode (0-100) label string '' Label text displayed with the progress bar type 'circular' | 'linear' 'circular' Type of progress indicator color string '#2E308E' Color of the progress indicator mode 'determinate' | 'indeterminate' | 'buffer' | 'query' 'determinate' Progress mode svgSize number '' Custom SVG size (overrides responsive sizing) position '12' | '3' | '6' | '9' | number '12' Starting position for circular progress (clock positions) Outputs ■ Property Type Description None - This component doesn't emit events Properties ■ Property Type Description progressId string Unique identifier for the progress element circumference number Circumference of the circular progress (readonly) dashOffset number Current dash offset for circular progress errorMessage string Error message for invalid inputs displayPercentage number Animated display percentage for linear progress rotationAngle number Rotation angle for circular progress position Methods ■ Method Parameters Description updateProgress() None Updates the progress display and animations writeValue() value: number Sets the progress value (ControlValueAccessor) registerOnChange() fn: (value: number) => void Registers change callback (ControlValueAccessor) registerOnTouched() fn: () => void Registers touched callback (ControlValueAccessor) CSS Custom Properties ■ The component uses CSS custom properties for dynamic styling: Circular Progress Properties ■ Property Description --progress-text-weight Font weight for progress text --progress-text-color Text color for progress display --progress-text-font Font size for progress text --progress-label-font Font size for progress label --progress-label-color Color for progress label --progress-label-line-height Line height for progress

label --progress-label-weight Font weight for progress label --progress-transition Transition timing for progress animations --progress-indeterminate-animation Animation for indeterminate mode

Linear Progress Properties

Property	Description
--progress-linear-height	Height of the linear progress bar
--progress-linear-border-radius	Border radius for linear progress

CSS Classes

The component uses CSS classes for styling and state management:

Container Classes

Class	Description
.progress-container	Main container for circular progress
.linear-progress-container	Main container for linear progress

Progress Classes

Class	Description
.progress-background	Background circle for circular progress
.progress-bar	Main progress circle/bar
.progress-text	Text display inside circular progress
.progress-label	Label text for progress
.linear-bar	Container for linear progress bar
.linear-progress	Main linear progress element
.buffer-bar	Buffer progress element
.indeterminate-bar	Indeterminate progress element
.progress-percentage	Percentage display for linear progress

State Classes

Class	Description
.indeterminate	Indeterminate animation state
.progress-error	Error message styling

Best Practices

Progress Mode Selection

- Use determinate mode when you know the exact progress
- Use indeterminate mode for unknown loading times
- Use buffer mode for operations with both progress and buffer (e.g., video loading)
- Use query mode for search or query operations

Color and Styling

- Choose colors that provide good contrast with the background
- Use consistent colors across your application
- Consider using semantic colors (success, warning, error) for different states
- Ensure accessibility with proper color contrast ratios

Performance

- Avoid frequent percentage updates for smooth animations
- Use appropriate animation durations based on the operation
- Consider using indeterminate mode for very short operations

Accessibility

- Always provide meaningful labels
- The component includes proper ARIA attributes
- Ensure sufficient color contrast
- Test with screen readers

Responsive Design

- The component automatically adjusts size on different screens
- Test on various device sizes
- Consider custom sizing for specific use cases

Accessibility

ARIA Support

- Proper role="progressbar" attribute
- aria-valuenow for current progress value
- aria-valuemin="0" and aria-valuemax="100" for value range
- Screen reader announcements for progress updates

Keyboard Navigation

- Focus indicators for interactive elements
- Proper tab order
- Keyboard-accessible progress controls

Visual Accessibility

- High contrast color options
- Clear visual indicators
- Scalable text and graphics
- Support for reduced motion preferences

Browser Support

- Modern Browsers : Full support for all features
- SVG Support : Required for circular progress
- CSS Animations : Required for smooth transitions
- ES6+ Features : Required for component functionality
- Change Detection : OnPush strategy support

```
<aava-progressbar
  [percentage]="25"
  label="25% Complete"
  type="circular"
  [svgSize]="100"
>
</aava-progressbar>
```

```
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```

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</aava-progressbar>
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```
<aava-progressbar
  [percentage]="100"
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  type="circular"
  [svgSize]="100"
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</aava-progressbar>
```

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